MARKED UP VERSION OF AMENDED CLAIMS PURSUANT TO 37 CFR § 1.121 (c)(1)(ii)

1. (Twice amended) A method of acquiring a three-dimensional image data set of a periodically moving organ of the body of a patient, comprising the steps of:

irradiating the organ by means of an X-ray device which includes an X-ray source and an X-ray detector,

detecting a motion signal (H, B) which is related to the periodic motion of the body organ simultaneously with the acquisition of projection data sets (D_0, D_1, ..., D_{16}),

successively acquiring the projection data sets (D_0, D_1, ..., D_{16}) required for the formation of a three-dimensional image data set from different x-ray positions (p_0, p_1, ..., p_{16}), which x-ray positions are situated in one plane,

controlling the x-ray device by means of the motion signal (H, B) to acquire a projection data set (D_0, D_1, ..., D_{16}) during a low-motion phase of the body organ in each X-ray position (p_0, p_1, ..., p_{16}) required for the formation of the three-dimensional image data set, wherein the motion signal (H, B) is used to control the x-ray device in such a manner that projection data sets (D_0, D_1, ..., D_{16}) are acquired from individual, selected x-ray positions (p_0, p_1, ..., p_{16}), and

using the projection data sets (D_0, D_1, ..., D_{16}) acquired during the low-motion phases for the formation of the three-dimensional image data set.

12. (Twice Amended) An X-ray device which includes:

an X-ray source and an X-ray detector for the acquisition of a plurality of projection data sets (D_0, D_1, ..., D_{16}) from different X-ray positions (p_0, p_1, ..., p_{16}) and for the formation of a three-dimensional image data set of a periodically moving organ

of the body of a patient (5) from the projection data sets (D_0, D_1, ..., D_{16}),

wherein there is provided an arithmetic and control unit for controlling the x-ray device and for forming the three-dimensional image data set such that the projection data sets (D_0, D_1, ..., D_{16}) required for the formation of the three-dimensional image data set are successively acquired from different x-ray positions (p_0, p_1, ..., p_{16}) which are situated in one plane,

wherein a projection data set (D_0, D_1, ..., D_{16}) is acquired during a low-motion phase of the body organ in each X-ray position (p_0, p_1, ..., p_{16}) required for the formation of the three-dimensional image data set, wherein the motion signal (H, B) is used to control the x-ray device in such a manner that projection data sets (D_0, D_1, ..., D_{16}) are acquired from individual, selected x-ray positions (p_0, p_1, ..., p_{16}), and

wherein the projection data sets (D_0, D_1, ..., D_{16}) acquired during the low-motion phases are used exclusively for the formation of the three-dimensional image data set.

REMARKS

By this amendment, claim 11 has been cancelled. Claims 1 and 12 have been amended. Claims 1-10 and 12-17 remain in the application. This application has been carefully considered in connection with the Examiner's Action. Reconsideration and allowance of the application, as amended, are respectfully requested.

Claim 11 stands objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Allowability of claim 11 is noted with appreciation. Claim 11 depends from claim 1, with no intervening claims. By this amendment, claim 11 has been cancelled. However, the limitations of claim 11 have been included within claim 1 as amended herein. Accordingly, claim 1 is now in immediate condition for allowability.

Rejection[s] Under 35 U.S.C. §103

Claims 1 - 5, 7, and 12 - 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoshitome (U.S. Patent 5,751,782). With respect to claims 1 and 12, applicant traverses this rejection for the following reason:

As noted herein above, claim 1 has been amended to include the limitations of claim 11 which has been determined to contain allowable subject matter. By this amendment, claim 12 has also been amended to include limitations as found in claim 11. Accordingly, claims 1 and 12 are in condition for allowance. The rejection under 35 U.S.C. §103(a) should be withdrawn.

Dependent claims (2-5, 7) and (13, 14) depend from and further limit independent claims 1 and 12, respectively, and therefore are allowable as well.

Claims 6, 8, 9, 15, and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoshitome in view of Van Horn et al. (U.S. Patent 3,871,360). Applicant traverses this rejection for the following reason:

Dependent claims (6, 8, 9) and (15, 17) depend from and further limit independent claims 1 and 12, respectively, and therefore are allowable as well. The rejection under 35 U.S.C. §103(a) should be withdrawn.

Claims 10 and 16 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Yoshitome in view of Van Horn et al., and further in view of Fujita (U.S. Patent 5,482,042). Applicant traverses this rejection for the following reason:

Dependent claims 10 and 16 depend from and further limit allowable claims 1 and 12, respectively, and therefore are allowable as well. The rejection under 35 U.S.C. §103(a) should be withdrawn.

Conclusion

It is clear from all of the foregoing that independent claims 1 and 12 are in condition for allowance, as well as dependent claims (2-10) and (13-17), respectively. Accordingly, an early notice of allowance of claims 1-10 and 12-17 is courteously solicited.

Reconsideration, and allowance of the application, as amended, are respectfully requested.

PATENT
Docket No.: PHD 99-130
Customer No. 000022878

Respectfully submitted,

Michael J. Balconi-Lamica

Michael J. Balconi-Lamica
Registration No.34,291

Dated: 9/24/02

HAYNES AND BOONE, LLP
600 Congress Ave., Suite 1600
Austin, Texas 78701-3236
Telephone: 512/867-8421
Facsimile: 512/867-8622
File: PHD 99-130

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on 9/24/02

A-138273.1